

## **REMARKS/ARGUMENTS**

Applicant respectfully requests reconsideration of the present application, withdrawal of the previously presented rejections, and formal notification of allowance of all pending claims in view of the preceding amendments and the following remarks.

### **I. Status of Claims**

This Amendment is in response to the Office Action mailed October 12, 2011. The Office Action first rejected Claims 1, 4-7, 10, 12-16, 19, 20, 22-25, 27-31, 33, 36, 40, 43-45, 48-53, 55-57, and 59-66 under 35 U.S.C. § 103(a) as being rendered obvious by Canadian Patent No. 2,129,925 to Zwaneveld ("*Zwaneveld*") in view of U.S. Patent No. 6,785,539 to Hale ("*Hale*"), further in view of U.S. Patent Application Pub. No. 2001/0025241 to Lange ("*Lange*"). Claim 32 is then rejected under 35 U.S.C. § 103(a) as being rendered obvious by *Zwaneveld* in view of *Hale* in view of *Lange*, further in view of U.S. Patent No. 6,512,919 to Ogasawara ("*Ogasawara*"). Following this Amendment, Claims 1, 4-7, 10, 12-16, 19, 20, 22-25, 27-33, 36, 43-45, 48-53, 55-57, and 59-66 remain pending in the application.

### **II. Rejection of Independent Claims 1, 33, 40, and 66**

The Office Action mailed October 12, 2011 rejected independent Claims 1, 33, 40, and 66 under 35 U.S.C. § 103(a) as being rendered obvious by *Zwaneveld*, *Hale*, and *Lange*. In this regard, Applicant respectfully disagrees. In particular, Applicant respectfully asserts that independent Claims 1, 33, 40, and 66 are not rendered obvious because the references fail to teach or suggest at least a cellular telephone having a microphone configured to receive the wireless acoustic signal of the presentation and to generate a corresponding electrical signal for processing to determine synchronization information for use in controlling the timing at which pre-stored captions are output.

*Zwaneveld* describes a system that can determine and provide subtitles for a film. The system reads an acoustic signal from a film itself and synchronizes the display of captions based upon signatures determined from the read audio signal. In the system taught by *Zwaneveld*, a venue performs the reading and synchronization, thereafter displaying the results for everyone at

the venue to see. However, *Zwaneveld* does not teach or suggest a configuration in which a microphone on a cellular telephone is used to receive the acoustic signal of the presentation and to convert the same into an electrical signal that, in turn, determines synchronization of the outputting of captions for the presentation.

*Hale* discloses a captioning system where a portable device has stored captions and the outputting of the captions to the user is triggered by an RF or IR wireless signal. As may be seen from the various figures of *Hale*, a separate RF/IR transmitter system is required for this particular feature. See, for example Figure 3, where timing codes are determined from the presentation and then subsequently and separately transmitted by the RF/IR transmitter system to the portable device. Only after receipt of the timing codes does the portable device of *Hale* output captions of any sort. As such, *Hale*, like *Zwaneveld* does not teach or suggest a configuration in which a microphone on a cellular telephone is used to receive the acoustic signal of the presentation and to convert the same into an electrical signal that, in turn, determines synchronization of the outputting of captions for the presentation.

*Lange* discloses a speech-to-text processing system (20) that separates an audio signal from an AV signal, converts the audio signal to text data, and encodes the original AV signal with the converted text data to produce a captioned AV signal. A camera (50) is required, which further contains a microphone that is used to separate the audio signal from the AV signal. However, *Lange* does not teach that a microphone of the cellular telephone is used to receive the acoustic signal of the presentation and to convert it into an electrical signal for processing to determine synchronisation information for use in controlling the timing that pre-stored captions are output. The examiner is using the present application to infer a disclosure that is not present in *Lange*. *Lange* very clearly states that the speech-to-text processing system 20 may be provided on a cellular telephone (paragraph [18]). *Lange* also states that the speech-to-text processing system 20, the separation processing system 30 and the encoder 40 can all be on one device (end of paragraph [17]). However, the microphone that is used to generate the audio signal of the AV signal is part of the camera 50 – which is not stated as being in the same device as the speech-to-text processing system 20 and is clearly a separate device. So in *Lange*, the microphone of the cellular telephone is not used to receive the wireless acoustic signal of the

presentation.

The Office Action also states that Lange teaches “a synchronizer configured to process the electrical signal obtained from the microphone corresponding to said acoustic signal of said presentation, to determine synchronization information for use in defining the timing during the presentation at which each caption is to be output to the user associated with the cellular telephone”. However, such an interpretation changes the meaning of what is the claimed “presentation”. In particular, the whole point of Lange is to generate captions for an original presentation (for example, of the teacher giving the lesson in the classroom) which are then associated with an AV signal recording the original presentation, so that the captions can be played out when the captioned AV signal is used to provide a later presentation on display 60. In the examiner’s interpretation of Lange, the “presentation” from which the audio signal is captured using the microphone of the camera is the original presentation; and the captions are output in synchronism with the later presentation output on the display 60.

Still further, those skilled in the art would not have arrived at the claimed invention from a combination of *Zwaneveld*, *Hale*, and *Lange* and indeed the system described in *Lange* could not even work in the system of *Hale*. In particular, *Lange* describes a system for generating captions for an AV signal to produce a “captioned AV signal”. The system uses a camera to record the original presentation and to generate an original AV electrical signal. The audio part of that AV electrical signal is processed by an automatic speech recogniser to generate text corresponding to the speech in the audio. That text is then synchronised with the video signal (see paragraph [20] at the bottom of page 2) associated with the converted audio signal. In other words, in the system described by *Lange*, the speech-to-text processing system maintains a timing relationship between the recognised text and the part of the audio signal with which it corresponds; and because the audio signal is inherently time aligned with the video signal in an AV signal, it can determine the relevant parts of the video signal with which each bit of text is related. Of course, it can only do that if it has the inherently synchronised AV signal.

In the case of open captions, *Lange* then integrates the recognised text with the relevant parts of the video – so that the text will be displayed together with the corresponding video frames. In the case of closed captions, *Lange* synchronises the captions with the video by

associating each caption with a video time code for the corresponding part of the AV signal (see paragraph [20] at the top of page 3). In this way, the final play-out device (display 60) can add the captions to the displayed video using the time codes associated with each caption. The play-out device can only do this because: i) it is in control of the play-out of the video; ii) it has the video time codes embedded in the video signal; and iii) it has the captions and their associated video time codes that tell the play-out device when to output each caption. If the play-out device does not have any one of these bits of information, then it can't output the closed captions in synchronism with the video. Therefore, in *Lange*, like in the system of *Zwaneveld*, it is the system that is playing out the video on the display that is also generating and outputting the captions.

In contrast, *Hale* does not pre-store the original AV signal with the timing codes necessary to internally work out the timing of the caption outputs. As such, even if one attempted to incorporate the *Lange* generated captions with the portable device of *Hale*, one would still need to send the portable device of *Hale* trigger signals to tell the portable device when to output each caption. And the only teaching of how such triggers could be sent to a portable device lie in *Hale*, wherein the triggers are sent to the portable device using an RF/IR transmitter separate and distinct from the cellular telephone itself. Indeed, it is only from the Applicant's own disclosure that there is any teaching to use a microphone within a cellular telephone to detect the acoustic signal of a presentation that is being made and to process it to determine synchronization information used to control the output timing of captions during that same presentation. Therefore, *Lange* does not teach anything further than *Zwaneveld* and *Hale* and those skilled in the art could not have arrived at the invention in the manner suggested by the examiner.

Accordingly, for at least these reasons, Applicant respectfully asserts that independent Claims 1, 33, 40, and 66 provide a patentable distinction over the cited references and respectfully requests that the Examiner withdraw the current rejection of these claims and issue a Notice of Allowance.

**III. Rejection of Dependent Claims 4-7, 10, 12-16, 19, 20, 22-25, 27-32, 36, 43-45, 48-53, 55-57, and 59-65**

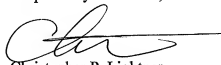
In the Office Action mailed October 12, 2011, Claims 4-7, 10, 12-16, 19, 20, 22-25, 27-32, 36, 43-45, 48-53, 55-57, and 59-65 were also rejected as being unpatentable over various combinations of the cited references. The patentability of independent Claims 1, 33, 40, and 66, from which these claims depend, respectively, has been argued as set forth above and thus Applicant will not take this opportunity to argue the merits of the rejections of these dependent claims. However, Applicant does not concede that dependent Claims 4-7, 10, 12-16, 19, 20, 22-25, 27-32, 36, 43-45, 48-53, 55-57, and 59-65 are not independently patentable and reserves the right to argue the patentability of the dependent claims at a later date if necessary.

**IV. Conclusion**

In view of at least the foregoing remarks, Applicant submits that the pending claims are now in condition for allowance. Applicant respectfully requests that the claims be allowed to issue. If the Examiner wishes to discuss the application or the remarks herein, the Examiner is urged to contact the undersigned by telephone.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefor (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,



Christopher P. Lightner  
Registration No. 62,156

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**Customer No. 00826**

**ALSTON & BIRD LLP**

Bank of America Plaza  
101 South Tryon Street, Suite 4000  
Charlotte, NC 28280-4000  
Tel Atlanta Office (404) 881-7000  
Fax Atlanta Office (404) 881-7777

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